

INTERNATIONAL SEARCH REPORT

International	Application No
PCT/IB 03/03891	

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H01J29/46 H01J31/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 03 054901 A (PHILIPS CORP INTELLECTUAL PTY ; SCHIEBEL ULRICH (NL); BACHMANN PETE) 3 July 2003 (2003-07-03) the whole document page 3-4 ---	1, 3, 8
X	US 2002/060517 A1 (ROBINDER RONALD CHARLES ET AL) 23 May 2002 (2002-05-23) the whole document paragraphs '0005!, '0007!, '0024!-'0032!, '0038!; figures 3-10 ---	1, 2, 5, 8
Y	---	1-3, 5-8

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

17 December 2003

Date of mailing of the International search report

29/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Meyer, J

INTERNATIONAL SEARCH REPORT

International	Application No
PCT/IB 03/03891	

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 955 833 A (JANNING JOHN L) 21 September 1999 (1999-09-21) column 1, line 17-28 column 3, line 22 -column 4, line 39; figures 1,2 -----	1-3,8
Y	EP 0 899 770 A (MATSUSHITA ELECTRONICS CORP) 3 March 1999 (1999-03-03) paragraphs '0050!, '0039!; figure 2 -----	6,7
Y	US 5 986 399 A (VAN VEEN GERARDUS ET AL) 16 November 1999 (1999-11-16) figure 1 -----	1,7,8
Y	US 6 069 599 A (GRANT PETER ET AL) 30 May 2000 (2000-05-30) column 4, line 46-61; figure 6 -----	5,6
X	US 3 935 500 A (OESS FREDERICK G ET AL) 27 January 1976 (1976-01-27) the whole document	1,2,8
Y	column 4, line 56 -column 5, line 25; figures 1-3 -----	6

INTERNATIONAL SEARCH REPORT

Information on patent family members

International

Application No

PCT/IB 03/03891

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 03054901	A	03-07-2003	WO	03054901 A2		03-07-2003
US 2002060517	A1	23-05-2002	US	6411020 B1		25-06-2002
			US	6441543 B1		27-08-2002
			CA	2319395 A1		05-08-1999
			CN	1295717 T		16-05-2001
			EP	1057198 A1		06-12-2000
			JP	2002502092 T		22-01-2002
			WO	9939361 A1		05-08-1999
US 5955833	A	21-09-1999	US	5982082 A		09-11-1999
			US	6111353 A		29-08-2000
			US	6147456 A		14-11-2000
			US	6084345 A		04-07-2000
			US	6087766 A		11-07-2000
			US	6127774 A		03-10-2000
			US	6323594 B1		27-11-2001
			US	6215243 B1		10-04-2001
			US	6414442 B1		02-07-2002
			US	5949185 A		07-09-1999
EP 0899770	A	03-03-1999	EP	0899770 A1		03-03-1999
			JP	11144652 A		28-05-1999
			US	6208072 B1		27-03-2001
US 5986399	A	16-11-1999	EP	0717878 A1		26-06-1996
			WO	9600977 A1		11-01-1996
			JP	9503095 T		25-03-1997
			US	5801485 A		01-09-1998
US 6069599	A	30-05-2000	NONE			
US 3935500	A	27-01-1976	US	4020381 A		26-04-1977